

Notice of Allowability

Application No.

10/066,278

Examiner

Kuen S Lu

Applicant(s)

SU ET AL.

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/1/2005.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ The drawings filed on 31 January 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date #1/May 24, 2005.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Mohammad Ali
MOHAMMAD ALI
PRIMARY EXAMINER

DETAILED ACTION

1. This communication is responsive to the Patent Application filed on January 31, 2002 and amendments filed on April 1, 2005. The amendments are considered.
2. Claims 1-20 are currently pending in the Application.

Examiner's Amendments

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee. Authorization for this Examiner's amendment, listed below, was given in a telephone interview with Ms. Susan Hill, (Registration Number 35,896) on May 19, 2005.

4. Please replace the claims 1, 2, 4, 9, 10 and 12 which have been filed on March 28, 2005 as follows:

1. In a device that uses a Java programming language and a second programming language, a method of emulating more simultaneously open files in the device than is permitted by an operating system of the device comprising:
while running a predetermined program in the Java programming language, attempting to access a file stored within the device;
determining whether the file is already open from prior execution;
if the file is open, access to the file proceeds;

if the file is not open, a determination is made by the device of a number of files the device permits to be simultaneously open;

if the number is not exceeded by opening the file, the file is opened;

if the number is exceeded by opening the file, the device emulates having more files open than the number allowed by:

(1) saving a file position for at least one open file, the file position designating where a next byte in the at least one open file would be accessed;

(2) closing the at least one open file; and

(3) opening the file;

wherein subsequent accesses to the at least one open file that has been closed are made transparently to the predetermined program in the Java programming language by closing at least one currently open file, retrieving the file position previously saved, and opening and restoring the file position for that file.

2. The method of claim 1 further comprising:

saving the file position in storage allocated for usage by Java code.

4. The method of claim 1 further comprising:

providing a table;

storing arbitrarily long file names in a first format;

storing corresponding shortened names in a second format not exceeding a maximum number of characters; and

translating from the first format to the second format when a file is initially opened under control of the Java programming language, the translating being implemented

transparent to any Java programming language application so that the Java programming language does not utilize the corresponding shortened names.

9. The method of claim 1 further comprising:

providing a table;

storing a directory in the table, the directory indicating a Java language application suite corresponding to a predetermined file; and

using the directory in the table to distinguish files of the same name belonging to different Java language application suites.

10. The method of claim 1 further comprising:

using storage allocated for use by Java code to contain variables such as file position needed by the second programming language.

12. The method of claim 10 further comprising:

using automatic memory management features of the Java programming language including garbage collection to reclaim storage when the file is no longer in use.

Reason for Allowable

5. The following is the Examiner's statement of reasons for allowance:

In the Examiner's Office Action for non-Final Rejection of December 28, 2004, U.S.C. § 103, rejections was mainly based on references Leong et al. (U.S. Publication 2003/0078902, "Method, system, and program for maintaining a database of data objects", hereafter "Leong"), InvFos ("Infinitive Virtually Simultaneous File Opening System", Oyama Tsunehisha, NEC Comm Syst, 9/10/1993, hereafter "InvFos"), and

CapAfs ("A globally accessible file system", Judy T. Reagan, A dissertation submitted to the University of Dublin, in partial fulfillment of the requirements for the degree of Master of Science in Computer Science, 1999, hereafter "CapAfs"). The Applicant argued that the references or their combination do not teach solving the problem "emulating more simultaneously open files in the device than is permitted" in "the more complex environment of having two programming languages".

Based on the Applicant's Amendments, filed on April 1, 2005 and a telephone interview conducted on May 19, 2005 authorizing the Examiner's amendment as previously described, the Application clearly distinguishes from prior art.

Based on further reviewing the above consideration and an update search conducted as described below, the Amendment filed on April 1, 2005, is hereby considered and accepted.

The prior arts in domains (EAST, NPL-ACM, Google, NPL-IEEE, etc) searches have been updated. The prior arts searched and investigated in domains (EAST, NPL-ACM, Google, NPL-IEEE, etc) do not fairly teach or suggest the teaching of the following limitations of each of the following independent Claims 1 and 14:

In a device that uses a Java programming language and a second programming language, a method of emulating more simultaneously open files in the device than is permitted by an operating system of the device comprising:

if the number is exceeded by opening the file, the device emulates having more files open than the number allowed by:

(1) saving a file position for at least one open file, the file position designating where a next byte in the at least one open file would be accessed;

(2) closing the at least one open file; and

(3) opening the file;

wherein subsequent accesses to the at least one open file that has been closed are made transparently to the predetermined program in the Java programming language by closing at least one currently open file, retrieving the file position previously saved, and opening and restoring the file position for that file.

Claims 2-13 and 15-20 are dependent on the Claims 1 and 14, respectively, and also distinct from the prior arts for the same reason.

After a search and a thorough examination of the present Application and in light of the prior arts, Claims 1-20 are allowed.

Conclusions

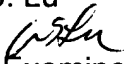
6. Any comments considered necessary by Applicants must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".


Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuen S. Lu whose telephone number is (571) 272-4114. The examiner can normally be reached on Monday-Friday (8:00 am-5:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kuen S. Lu

Patent Examiner
May 25, 2005


Mohammad Ali
Primary Examiner
May 25, 2005